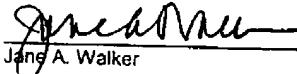


**PATENT**

**Certificate of Facsimile Transmission**  
 I hereby certify that this correspondence is being deposited via facsimile to Mail Stop Non-Fee Amendment, Commissioner for Patents, Alexandria, VA 22313-1450, Technology Center 1700 Attention: David Lukton, at fax number 703 872 9306 on

 June 24, 2004  
 Jane A. Walker Date

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Rajagopalan et al.  
 Serial No.: 09/898,887  
 Filed: July 31, 2001  
 Group Art Unit: 1653  
 Confirmation No: 2188  
 Examiner: Lukton  
 Title: **AROMATIC SULFENATES FOR TYPE I PHOTOTHERAPY**  
 Our Ref. No.: MRD-61

Cincinnati, Ohio 45202

June 24, 2004

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

**DECLARATION OF RAGHAVAN RAJAGOPALAN**  
**PURSUANT TO 37 C.F.R. §1.132**

Sir:

I, RAGHAVAN RAJAGOPALAN, declare as follows:

1. I am a named inventor in the above-identified patent application.
  
2. I hold a Ph.D. in Organic Chemistry from Columbia University. I have 21 years of experience in the synthesis and use of compounds for medical diagnosis and

therapy, which is the subject of the application. I have read the outstanding Office Action of March 25, 2004, and understand the position of the Examiner.

3. I respectfully disagree with the Examiner's position that the claimed method is not enabled because there is no evidence that a phototherapeutic procedure will happen. The "administering" and "exposing" steps will result in performing a phototherapeutic procedure, as claimed. This is at least because of the chemical structure of the photosensitizers; they are aromatic chromophores. By exposing these chromophores to light of the claimed wavelength, the aromatic rings are excited. The aromatic rings in their excited state effect intramolecular energy transfer to the sulfenate group. At least because of their chemical nature, sulfenates will undergo photochemical and thermal fragmentation (bond rupture) to produce two reactive free radicals. The chemistry of radicals implicates their involvement in cellular injury and death.

4. In my opinion, due to this chemistry of the aromatic chromophores, activation will occur.

5. In my opinion, due to the chemistry of the sulfenate moiety, energy will be transferred and free radicals will be generated.

6. I respectfully disagree with the Examiner's statement that "The term "therapy" (or phototherapy) implies an assertion that an ill patient can be treated such that manifestations of the illness are ameliorated." I do not understand the Examiner's basis for this, and would request that he point to this disclosure in the specification or provide support for his statement. Further, it appears that the Examiner is requesting clinical data; it is my understanding that clinical data of the type required for submission to the FDA are not required in a patent application.

7. For the above reasons, I respectfully assert that the claims are described and enabled.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the subject application or any patent issued thereon.

June 24, 2004

Date

Raghavan Rajagopalan

Raghavan Rajagopalan, Ph.D.